

## ABSTRACT

[0045] A vibration sensor (1) for monitoring the state of rotating components or bearings, includes a housing (2), a sensor element (3), evaluation electronics (4), and at least one interface (5, 6). With the vibration sensor (1), reliable monitoring of the state of rotating components and bearings can be done easily and economically, and in addition the vibration sensor can be easily operated. The evaluation electronics (4) has an analog-to-digital converter (7), and a signal conditioning means (8) having a plurality of signals, which have been acquired by the sensor element (3), and which are converted into a state value using signal analysis and a diagnosis algorithm.